AMENDMENTS TO THE CLAIMS:

Please cancel claims 6-7, 21-22, 28-31, and 34-41 without prejudice or disclaimer and amend the claims as follows:

1. (Currently Amended) An optical switch comprising:

a first optical amplifier which includes:

a first erbium-doped fiber; and

a first optical pumping source connected to said first erbium-doped fiber with a first optical branch;

a second optical amplifier connected in cascade to said first optical amplifier, and which includes:

a second erbium-doped fiber; and

a second optical pumping source connected to said second erbium-doped fiber with a second optical branch;

a first optical coupler connected to said first optical amplifier;

a second optical coupler inserted between said first and second optical amplifiers; and

a first control circuit for outputting first and second control signals for switching a gain of said first and second optical ~~amplifiers~~ amplifiers,

a third optical amplifier connected to said second optical amplifier with said second optical coupler, which includes:

a third erbium-doped fiber; and

a third optical pumping source connected to said third erbium-doped Fiber with a third optical branch.

2. (Previously Presented) The optical switch according to claim 1, wherein said first and second optical amplifiers each comprise a semiconductor optical fiber amplifier.

3. (Previously Presented) The optical switch according to claim 1, wherein said first and second optical amplifiers each comprise an optical fiber amplifier.

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4. (Original) The optical switch according to claim 1, further comprising:

a first optical isolator inserted between said first optical amplifier and said second optical amplifier.

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Currently Amended) The optical switch according to ~~claim 7~~ claim 1, wherein said third optical amplifier comprises a semiconductor optical fiber amplifier.

9. (Canceled)

10. (Canceled)

11. (Currently Amended) The optical switch according to ~~claim 7~~ claim 1, further comprising:

an optical power monitor ~~for~~ detecting an optical power outputted from said second optical amplifier.

12. (Currently Amended) The optical switch according to ~~claim 4~~ claim 1, further comprising:

a first optical isolator inserted between said first optical amplifier and said second optical amplifier;

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a second optical isolator connected to the input of said first optical amplifier; and

a third optical isolator connected to the output of said second optical amplifier.

13. (Original) The optical switch according to claim 1, further comprising:

a first optical filter inserted between said first and second optical amplifiers, for passing a signal light wavelength alone therethrough.

14. (Original) The optical switch according to claim 13, further comprising:

a second optical filter connected to the output of said second optical amplifier, for passing the signal light wavelength alone therethrough.

15. (Previously Presented) The optical switch according to claim 1, wherein said first pumping source generates a pumping light whose wavelength is in a 980 nm wavelength region to be inputted to said first erbium-doped optical fiber.

16. (Original) The optical switch according to claim 1, wherein at least one of said first and second optical amplifiers comprises a forward-pumped optical fiber amplifier.

17. (Original) The optical switch according to claim 1, wherein at least one of said first and second optical amplifiers comprises a bidirectional-pumped optical fiber amplifier.

18. (Original) The optical switch according to claim 1, wherein at least one of said first and second optical amplifiers comprises an optical fiber amplifier having the pumping light generated by wavelength-division multiplexing.

19. (Original) The optical switch according to claim 1, wherein at least one of said first and second optical amplifiers comprises an optical fiber amplifier having the pumping light generated by polarization multiplexing.

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20. (Previously Presented) An optical switch for a wavelength-division multiplexed light which is obtained by wavelength-division multiplexing a plurality of light signals, said optical switch comprising:

an optical wavelength demultiplexer for demultiplexing said wavelength-division multiplexed light into said plurality of light signals and outputting each of said plurality of light signals to each of a plurality of branches;

a plurality of single wavelength optical switches, each being connected to each of said plurality of branches; and

an optical wavelength multiplexer for multiplexing the lights outputted from said plurality of single wavelength optical switches,

wherein each of said plurality of single wavelength optical switches comprises:

a first optical amplifier;

a second optical amplifier connected in cascade to said first optical amplifier;

a control circuit for outputting first and second control signals for switching a gain of said first and second optical amplifiers;

a first optical coupler connected to an input of said first optical amplifier; and

a second optical coupler inserted between said first and second optical amplifiers,

wherein each of said plurality of single wavelength optical switches comprises:

a first optical amplifier which includes:

a first erbium-doped fiber; and

a first optical pumping source connected to said first erbium-doped fiber with a first optical branch;

a second optical amplifier connected in cascade to said first optical amplifier, and which includes:

a second erbium-doped fiber; and

a second optical pumping source connected to said second erbium-doped fiber with a second optical branch;

a first optical coupler connected to said first optical amplifier;

a second optical coupler inserted between said first and second optical amplifiers; and

a first control circuit for outputting first and second control signals for switching a gain of said first and second optical amplifiers.

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21. (Canceled)

22. (Canceled)

23. (Previously Presented) The optical switch according to claim 1, further comprising:

a signal light detector for detecting whether or not a signal light is inputted to said first optical amplifier and then outputting the result of the detection as a detect signal,

said first control circuit for providing said first and second optical amplifiers with control signals for shutting down said first and second optical amplifiers, when said detect signal is inputted to said first control circuit to indicate that said signal light is not inputted to said first optical amplifier.

24. (Previously Presented) An optical network in which a plurality of optical nodes are connected through optical fiber transmission lines,

wherein each of said plurality of optical nodes comprises an optical switch as defined in claim 20.

25. (Original) An optical network in which a plurality of optical nodes are connected through optical fiber transmission lines,

wherein each of said plurality of optical nodes comprises an optical switch as defined in claim 23.

26. (Previously Presented) The optical switch according to claim 1, wherein said first optical amplifier switches a route of light.

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27. (Previously Presented) The optical switch according to claim 20, wherein said first optical amplifier switches a route of said light signals.

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Previously Presented) The optical switch of claim 1, wherein said second coupler is for receiving input light to increase a power of said input signal.

33. (Previously Presented) The optical switch of claim 20, wherein said second coupler is for receiving input light to increase a power of said input signal.

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

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38. (Canceled)

39. (Canceled)

40. (Canceled)

41. (Canceled)